

## What is claimed is:

1. A computer-implemented method for adaptively supporting medical decisions of at least one user, comprising:

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- a. receiving data;
- b. predicting at least one medical decision;
- c. displaying the at least one predicted medical decision;
- d. receiving at least one user-decision from the at least one user;

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- e. wherein each user-decision is a predicted medical decision or is not a predicted medical decision; and
- f. learning to predict the at least one user-decision from the data received.

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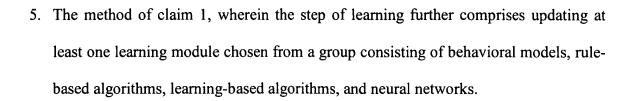
2. The method of claim 1, wherein the step of receiving data further comprises receiving data via a wireless communication means.

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The method of claim 2, wherein the wireless communication means is chosen from a group consisting of infrared signals, radio signals, and pulse codes.

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4. The method of claim 1, wherein data is received from a source chosen from a group consisting of the at least one user, at least one user who is not the at least one user, at least one information computer on which data are stored, at least one medical device, and at least one network port.



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- 6. The method of claim 1, wherein the step of learning further comprises customizing a plurality of operations to at least one parameter chosen from a group consisting of preferences of a user, habits of a user, medical specialties of a user, patient populations of a user, preferences of a group of users, habits of a group of users, medical specialties of a group of users, and patient populations of a group of users.
- 7. The method of claim 1, wherein the method is implemented on at least one portable computing device.
- 15 8. The method of claim 1, wherein

the method is implemented on a host computer;

the host computer receives data from at least one portable computing device; and the at least one portable computing device receives and displays output from the host computer.

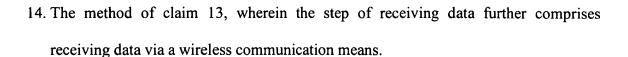
9. The method of claim 1, further comprising the step of executing the at least one user-decision, after the step of receiving the at least one user-decision.

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- 10. The method of claim 1, further comprising executing the at least one predicted medical decision, before the step of receiving the at least one user-decision.
- 5 11. The method of claim 1, further comprising displaying an electronic medical chart graphical user interface.
  - 12. A software program, embodied on a computer-readable medium, incorporating the method recited in Claim 1.
  - 13. A method for adaptively supporting medical decisions of at least one user, comprising:
    - a. receiving data;
    - b. transmitting the data to at least one neural network;
      - c. predicting at least one medical decision, via the at least one neural network;
      - d. displaying the at least one predicted medical decision;
      - e. receiving at least one user-decision from the at least one user;
  - f. wherein each user-decision is a predicted medical decision or is not a predicted medical decision;
    - g. learning to predict the at least one user-decision from the data received; and
    - h. wherein learning comprises updating the at least one neural network.

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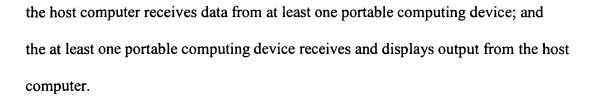
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- 15. The method of claim 14, wherein the wireless communication means is chosen from a group consisting of infrared signals, radio signals, and pulse codes.
- 16. The method of claim 13, wherein data is received from a source chosen from a group consisting of the at least one user, at least one user who is not the at least one user, at least one information computer on which data are stored, at least one medical device, and at least one network port.
- 17. The method of claim 13, wherein the step of learning further comprises customizing a plurality of operations to at least one parameter chosen from a group consisting of preferences of a user, habits of a user, medical specialties of a user, patient populations of a user, preferences of a group of users, habits of a group of users, medical specialties of a group of users, and patient populations of a group of users.
- 18. The method of claim 13, wherein the method is implemented on at least one portable computing device.

19. The method of claim 13, wherein

the method is implemented on a host computer;

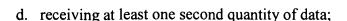


- 5 20. The method of claim 13, further comprising the step of executing the at least one user-decision, after the step of receiving the at least one user-decision.
  - 21. The method of claim 13, further comprising executing the at least one predicted medical decision, before the step of receiving the at least one user-decision.
  - 22. The method of claim 13, further comprising displaying an electronic medical chart graphical user interface.
  - 23. A software program, embodied on a computer-readable medium, incorporating the method recited in Claim 13.
  - 24. A computer-implemented method for adaptively supporting medical decisions of at least one user, comprising
- a. receiving at least one first quantity of data;
  - b. receiving at least one user-decision from a first at least one user;
  - c. learning to predict the at least one received user-decision from the at least one first quantity of data received;

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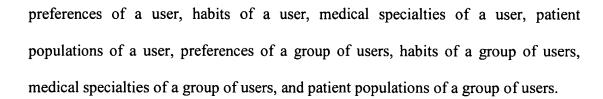


- e. predicting at least one medical decision;
- f. displaying the at least one predicted medical decision; and
- g. receiving at least one second user-decision.

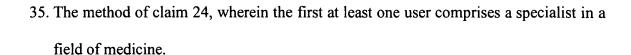
25. The method of claim 24, wherein the step of receiving data further comprises receiving data via a wireless communication means.

26. The method of claim 25, wherein the wireless communication means is chosen from a group consisting of infrared signals, radio signals, and pulse codes.

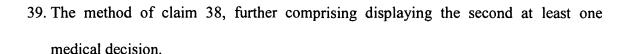
- 27. The method of claim 24, wherein the step of receiving at least one second quantity of data comprises receiving data from a source chosen from a group consisting of the first at least one user, at least one user who is not the first at least one user, at least one information computer on which data are stored, at least one medical device, and at least one network port.
- 28. The method of claim 24, wherein the step of learning further comprises updating at least one learning module chosen from a group consisting of behavioral models, rule-based algorithms, learning-based algorithms, and neural networks.
- 29. The method of claim 24, wherein the step of learning further comprises customizing a plurality of operations to at least one parameter chosen from a group consisting of



- 5 30. The method of claim 24, wherein the method is implemented on at least one portable computing device.
  - 31. The method of claim 24, wherein
- the method is implemented on a host computer;
  the host computer receives data from at least one portable computing device; and
  the at least one portable computing device receives and displays output from the host
  computer.
- 15 32. The method of claim 24, further comprising the step of executing the at least one user-decision, after the step of receiving the at least one user-decision.
  - 33. The method of claim 24, further comprising automatically executing the at least one predicted medical decision, before the step of receiving the at least one user-decision.
  - 34. The method of claim 24, further comprising displaying an electronic medical chart graphical user interface.



- 36. The method of claim 24, wherein the first at least one user comprises a billing specialist or a coding specialist.
  - 37. A software program, embodied on a computer-readable medium, incorporating the method recited in Claim 24.
- 38. A computer-implemented method for adaptively supporting medical decisions of at least one user, comprising
  - a. receiving a first quantity of data;
  - b. predicting a first at least one medical decision, via at least one rule-based algorithm;
  - c. displaying the first at least one medical decision;
  - d. receiving at least one user-decision from a first at least one user;
  - e. learning to predict the at least one user-decision from the data received;
  - f. receiving a second quantity of data; and
- g. predicting, via at least one learning-based algorithm, a second at least one medical decision.



- 40. The method of claim 38, wherein the step of receiving data further comprises receiving data via a wireless communication means.
- 41. The method of claim 40, wherein the wireless communication means is chosen from a group consisting of infrared signals, radio signals, and pulse codes.
- 42. The method of claim 38, wherein the second quantity of data is received from a source chosen from a group consisting of the first at least one user, at least one user who is not the first at least one user, at least one information computer on which data are stored, at least one medical device, and at least one network port.
- 15 43. The method of claim 38, wherein the method is implemented on at least one portable computing device.
  - 44. The method of claim 38, wherein
- the method is implemented on a host computer;
  the host computer receives data from at least one portable computing device; and
  the at least one portable computing device receives and displays output from the host
  computer.

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- 45. The method of claim 38, further comprising executing the first at least one medical decision, before the step of receiving the at least one user-decision.
- 5 46. The method of claim 38, further comprising the step of receiving a second at least one user-decision, after the step of predicting the second at least one medical decision.
  - 47. The method of claim 46, further comprising the step of executing the second at least one user-decision, after the step of receiving the second at least one user-decision.
  - 48. The method of claim 46, further comprising learning to predict the second at least one user-decision from the second quantity of data received.
  - 49. The method of claim 48, wherein the step of learning further comprises updating at least one learning module chosen from a group consisting of behavioral models, rule-based algorithms, learning-based algorithms, and neural networks.
  - 50. The method of claim 48, wherein the step of learning further comprises customizing a plurality of operations to at least one parameter chosen from a group consisting of preferences of a user, habits of a user, medical specialties of a user, patient populations of a user, preferences of a group of users, habits of a group of users, medical specialties of a group of users, and patient populations of a group of users.

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- 51. The method of claim 38, further comprising
  - a. predicting, via the at least one rule-based algorithm, a third at least one medical decision; and
  - b. displaying at least one predicted medical decision, chosen from a group consisting of the second at least one medical decision, the third at least one medical decision, and both the second and third at least one medical decisions.
- 52. The method of claim 51, further comprising executing the predicted medical decision chosen from the group consisting of the second at least one medical decision, the third at least one medical decision, and both the second and third at least one medical decisions.
- 53. The method of claim 51, wherein the predicted medical decision chosen from the group consisting of the second at least one medical decision, the third at least one medical decision is selected by at least one user, and both the second and third at least one medical decisions, is selected by at least one user.
- 54. The method of claim 51, wherein the predicted medical decision chosen from the group consisting of the second at least one medical decision, the third at least one medical decision, and both the second and third at least one medical decisions, is selected by a computing device.



- 55. The method of claim 51, further comprising the step of receiving a second at least one user-decision, after the step of predicting the third at least one medical decision.
- 56. The method of claim 55, further comprising the step of executing the second at least one user-decision after the step of receiving the second at least one user-decision.
- 57. The method of claim 55, further comprising learning to predict the second userdecision from the second quantity of data received.
- 10 58. The method of claim 57, wherein the step of learning further comprises updating at least one learning module chosen from a group consisting of behavioral models, rule-based algorithms, learning-based algorithms, and neural networks.
  - 59. The method of claim 57, wherein the step of learning further comprises customizing a plurality of operations to at least one parameter chosen from a group consisting of preferences of a user, habits of a user, medical specialties of a user, patient populations of a user, preferences of a group of users, habits of a group of users, medical specialties of a group of users, and patient populations of a group of users.
- 20 60. The method of claim 38, further comprising displaying an electronic medical chart graphical user interface.





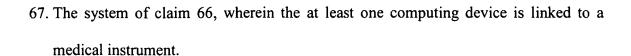
- 61. The method of claim 38, wherein the first at least one user comprises a specialist in a field of medicine.
- 62. The method of claim 38, wherein the first at least one user comprises a billing specialist or a coding specialist.
- 63. A software program, embodied on a computer-readable medium, incorporating the method recited in Claim 38.
- 10 64. A computer-based system for adaptively supporting medical decisions of at least one user, comprising:

means for receiving data;

means for predicting medical decisions;

- means for receiving at least one user-decision;
  - display means; and
  - means for learning to predict the at least one user-decision, from the data received.
- 65. The system of claim 64, wherein the system comprises at least one portable computing device.
  - 66. The system of claim 64, wherein the system comprises a host computer and at least one portable computing device.

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- 5 68. The system of claim 66, wherein the at least one computing device is integrated with a medical instrument.
  - 69. The system of claim 66, wherein each computing device communicates with the host computer via a wireless communication means.
  - 70. The method of Claim 69, wherein the wireless communication means is chosen from a group consisting of radio signals, infrared signals, or pulse codes.
  - 71. The system of claim 64, further comprising a means for displaying an electronic medical chart graphical user interface.
  - 72. The system of claim 64, wherein the means for learning comprises at least one learning module selected from a group consisting of at least one behavioral model, at least one rule-based algorithm, at least one learning-based algorithm, and at least one neural network.